

Yulin Wang

Ph.D. Student, Tsinghua University

Research Interests: *Efficient Deep Learning, Dynamic Deep Networks, Computer Vision.*

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Education

Ph.D. Student in Pattern Recognition and Machine Learning, Tsinghua University, China. 09/2019 – Now

➤ Advisor: Prof. Cheng Wu and Prof. Gao Huang.

B.Eng. in Automation, Beihang University, China. 09/2015 – 06/2019

➤ GPA **Top 1/231** in the school of automation science and electrical engineering (SASEE).

➤ Awarded "**Shen Yuan**" Medal by Beihang University (**Top 10** in 18,000+ undergraduate students).

Research Experience

Intern, Berkeley Deep Drive, University of California Berkeley, USA. 07/2018 – 08/2018

➤ Advisor: Dr. Ching-Yao Chan.

Intern, Lab of Intelligent Manufacturing, Beihang University, China. 06/2017 – 06/2018

➤ Advisor: Prof. Fei Tao.

Publications

- [1] Gao Huang*, **Yulin Wang***, Kangchen Lv, Haojun Jiang, Wenhui Huang, Pengfei Qi, Shiji Song.
(*co-first author with my advisor*)
Glance and Focus Networks for Dynamic Visual Recognition
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI, Q1, IF=24.31), 2022
- [2] Wenxuan Ma, Jinming Zhang, Shuang Li, Chi Harold Liu, **Yulin Wang**, Wei Li.
Making The Best of Both Worlds: A Domain-Oriented Transformer for Unsupervised Domain Adaptation
ACM International Conference on Multimedia (ACM MM), 2022
- [3] **Yulin Wang**, Yang Yue, Xinhong Xu, Ali Hassani, Victor Kulikov, Nikita Orlov, Shiji Song, Humphrey Shi, Gao Huang.
AdaFocus V3: On Unified Spatial-temporal Dynamic Video Recognition
European Conference on Computer Vision (ECCV), 2022
- [4] **Yulin Wang**, Yang Yue, Yuanze Lin, Haojun Jiang, Zihang Lai, Victor Kulikov, Nikita Orlov, Humphrey Shi, Gao Huang.
AdaFocus V2: End-to-End Training of Spatial Dynamic Networks for Video Recognition
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022
- [5] **Yulin Wang**, Rui Huang, Shiji Song, Zeyi Huang, Gao Huang.
Not All Images are Worth 16x16 Words: Dynamic Transformers for Efficient Image Recognition
Advances in Neural Information Processing Systems (NeurIPS), 2021
- [6] Yizeng Han, Gao Huang, Shiji Song, Le Yang, Honghui Wang, **Yulin Wang**.
Dynamic Neural Networks: A Survey
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI, Q1, IF=24.31), 2021
- [7] **Yulin Wang**, Zhaoxi Chen, Haojun Jiang, Shiji Song, Yizeng Han, Gao Huang.
Adaptive Focus for Efficient Video Recognition
IEEE/CVF International Conference on Computer Vision (ICCV Oral), 2021
- [8] **Yulin Wang**, Gao Huang, Shiji Song, Xuran Pan, Yitong Xia, Cheng Wu.
Regularizing Deep Networks with Semantic Data Augmentation
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI, Q1, IF=24.31), 2021
- [9] **Yulin Wang**, Zanlin Ni, Shiji Song, Le Yang, Gao Huang.
Revisiting Locally Supervised Learning: an Alternative to End-to-end Training
International Conference on Learning Representations (ICLR), 2021

- [10] Shuang Li, Mixue Xie, Kaixiong Gong, Chi Harold Liu, **Yulin Wang**, Wei Li.
Transferable Semantic Augmentation for Domain Adaptation
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR Oral), 2021
- [11] Shuang Li, Kaixiong Gong, Chi Harold Liu, **Yulin Wang**, Feng Qiao, Xinjing Cheng.
MetaSAug: Meta Semantic Augmentation for Long-Tailed Visual Recognition
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2021
- [12] Le Yang, Haojun Jiang, Ruojin Cai, **Yulin Wang**, Shiji Song, Gao Huang, Qi Tian.
CondenseNet V2: Sparse Feature Reactivation for Deep Networks
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2021
- [13] **Yulin Wang**, Kangchen Lv, Rui Huang, Shiji Song, Le Yang, Gao Huang.
Glance and Focus: a Dynamic Approach to Reducing Spatial Redundancy in Image Classification
Advances in Neural Information Processing Systems (NeurIPS), 2020
- [14] **Yulin Wang**, Rui Huang, Gao Huang, Shiji Song, Cheng Wu.
Collaborative Learning with Corrupted Labels
Neural Networks (NN, Q1, IF=9.66), 2020
- [15] **Yulin Wang**, Xuran Pan, Shiji Song, Hong Zhang, Cheng Wu, Gao Huang.
Implicit Semantic Data Augmentation for Deep Networks
Advances in Neural Information Processing Systems (NeurIPS), 2019
- [16] **Yulin Wang**, Yongping Zhang, Fei Tao, Tingyu Chen, Ying Cheng, Shunkun Yang.
Logistics-aware Manufacturing Service Collaboration Optimization towards Industrial Internet Platforms
International Journal of Production Research (IJPR, Q1, IF= 9.02), 2019

Academic Service

- Reviewer for TPAMI, IJCV, TCYB, TNNLS, TCSVT, Pattern Recognition, TMLR, ...
- Reviewer for ICML, NeurIPS, ICLR, CVPR, ICCV, ECCV, ...
- Program Committee Member for AAAI.

Selected Honors

- Baidu Fellowship (百度奖学金), Baidu Inc., 2021 (**10 PhD students worldwide**)
- CCF-CV Outstanding Young Researcher Award (CCF-CV 学术新锐奖), China Computer Federation (CCF), 2021 (**3 PhD/MS students in China**)
- National Scholarship (国家奖学金), Ministry of Education of China, 2021 (**Top 2% in Tsinghua University**)
- Outstanding Reviewer, CVPR, 2021
- Outstanding Oral Presentation, Doctoral Students Forum, Tsinghua University, 2021
- Travel Award, NeurIPS, 2019
- “Shen Yuan” Medal, Beihang University, 2018 (**Top 10 in 18,000+ undergraduate students**)
- National Scholarship, Ministry of Education of China, 2018 (**Top 2%**)
- National Scholarship, Ministry of Education of China, 2017 (**Top 2%**)
- Innovation Scholarship, Ministry of Industry and Information Technology of China, 2017 (**Top 1/231**)
- First Prize in the “Zhou Peiyuan” Mechanics Competition for Undergraduate Students, 2017 (**Top 0.3%**)
- First Prize in National Undergraduate Mathematical Contest in Modeling, 2017 (**Top 0.2%**)
- Scholarship for Outstanding Academic Performance, Beihang University, 2016-2019 (**Top 5%**)

Invited Talks

- 2019.10, SCSE, Beihang University, Semantic Data Augmentation
- 2020.06, Huawei Technologies Ltd., Glance and Focus Networks
- 2020.11, Qingyuan Seminar, Glance and Focus Networks

- 2021.03, ByteDance Ltd., Semantic Data Augmentation
- 2021.04, Beijing Academy of Artificial Intelligence, Dynamic Image/Video Recognition
- 2021.06, AI Time, Locally Supervised Deep Learning
- 2021.09, Aibee (invited by Yuanqing Lin), Semantic Data Augmentation
- 2021.10, School of Computer Science, Fudan University, Dynamic Deep Networks for Reducing Spatial Redundancy
- 2021.12, PRCV 2021, Dynamic Deep Networks for Reducing Spatial Redundancy